



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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GOVERNOR

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**North Carolina Board of Transportation
Environmental Planning and Policy Committee
Meeting Minutes for May 2, 2007**

A meeting of the Environmental Planning and Policy Committee (EPPC) was held May 2, 2007 at 8:30 AM in the Board Room (Room 150) of the Transportation Building. Board Member Nina Szlosberg chaired the meeting. Other Board of Transportation members that attended were:

Tom Betts
Conrad Burrell
Bob Collier

Doug Galyon
Arnold Lakey
Cam McRae

Andrew Perkins
Alan Thornburg

Other attendees included:

Julie Hunkins
Andy McDaniel
Beth Leonard McKay
Wally Bowman
Donnie Brew
John Sullivan
Mrinmay Biswas
Jon Nance
Greg Thorpe
Tim Johnson
Larry Goode
John Hennessy
Jason Robinson
Mike Pettyjohn
Joel Setzer

Glenn Dennison
Matt Lauffer
Travis Marshall
Lisa Glover
Ehren Meister
Jennifer Harris
Marie Sutton
John Rouse
Shannon Lasater
Daniel Keel
Missy Dickens
Sandy Nance
Berry Jenkins
M.L. Holder

Neil Lassiter
Bill Gilmore
Phil Harris
C.A. Gardner
Marcus Wilner
Jennifer Garifo
David Bailey
Amy Sims
Mike Mills
Don Lee
Debbie Barbour
Pat Ivey
Barry Moose
Jay Swain

Ms. Szlosberg called the meeting to order at 8:30 AM. She opened by accepting a motion to approve the meeting minutes from the April 4, 2007 committee meeting. The minutes were approved as presented.

Ms. Szlosberg introduced the first agenda topic by giving some brief background on legislation enacted within the past few years to protect the area around the Lake Jordan Reservoir. Part of that legislation requires the NC Department of Environment and Natural Resources (DENR) to provide information to fiscally affected agencies and give the agency the opportunity to comment on how

proposed rules might affect them. This was the purpose of the presentation from Rich Gannon of the Division of Water Quality at DENR -- to give an overview of the rules and what they might mean for our agency.

Mr. Gannon stated there were three points he would like to give to us take home today. One, that there is a significant and growing nutrient problem in Jordan Lake. Two, that they are proposing the most comprehensive set of measures to address that nutrient problem. And three, we are likely to be seeing more of these types of situations in the future.

Mr. Gannon showed a picture of an Algae bloom in the Morgan Creek Arm that feeds in to the Upper New Hope Arm of Jordan Lake taken in August of 2005. This has become a frequent or at least periodic problem in Jordan Lake.

Mr. Gannon referred to a handout that contained a summary of the history of the Jordan Watershed water quality, a proposed strategy, and the cost as well as an Executive Summary from the fiscal analysis that had been provided to the NC Department of Transportation (NCDOT). DWQ had also provided our agency the entire fiscal analysis to meet the new statutory requirements for fiscal analysis that might affect the department.

DWQ has been working closely with DOT staff on the language of the rules and on estimation of the costs. DWQ appreciated their willingness to work with them on this and expected to continue to work with them through this process.

The presentation covered:

- a little of the water quality history of the watershed and the management of the lake
- the mandate that the Environmental Management Commission (EMC) is under
- an overview of the whole strategy and particular requirements for NCDOT and the anticipated associated cost
- the rule making schedule

The Jordan Reservoir Watershed involves parts of eight (8) counties. Jordan Lake itself behaves hydrologically in a segmented manner such that there are almost three water bodies within the lake. The Upper New Hope Arm, the Lower New Hope Arm, and the Haw Sub-watershed which makes up 80% of the entire watershed of the lake. The worst water quality problems are in the Upper New Hope Arm. The three sub-watersheds behave very differently and that has resulted in the need for three sets of goals for nutrient reductions (nitrogen and phosphorus).

Mr. Gannon presented a Jordan Reservoir Nutrient History indicating that nutrient problems were predicted before the reservoir was constructed in 1981-82. Within a year or so of construction the lake was designated "Nutrient Sensitive". Since then there have been periodic algae blooms, regular water quality problems, and taste and odor problems. In 2002, the Upper New Hope Arm was officially declared "Impaired" under the Federal Clean Water Act. As of October 2005, the entire reservoir was determined to be "Impaired". The Clean Water Responsibility Act of 1997 required the EMC to set goals for nutrient sensitive waters. It mandated that the various contributors of nutrients are responsible for cleanup responsibility. It mandated specific nutrient discharge concentration limits for point source discharges with the option that if a lake model were

developed, then alternative limits produced by that model would be used instead. That was the approach that was taken in this case. The Federal Clean Water Act requires that once a water body is determined to be impaired, Stage 2 actions are required to clean it up.

The nutrient reduction goals are:

- For Upper New Hope, reductions of 35% N (nitrogen) and 5% P (phosphorus)
- For Lower New Hope, hold the line with no increases
- For the Haw, reductions of 8% N and 5% P

Reductions are from a baseline period that ended in 2001.

The entire set of proposed Jordan Nutrient Rules (15A NCAC 2B) are as follows:

- .0262 Goals
- .0263 Nutrient Management
- .0264 Agriculture
- .0265 Stormwater - New Development
- **.0266 Stormwater - Existing Development**
- .0267 Riparian Buffers - Protection
- .0268 Riparian Buffers - Mitigation
- **.0269 Options for Offsetting (Trading)**
- .0270 Wastewater Discharge
- **.0271 Stormwater - State and Federal Entities**
- .0272 Riparian Buffer Mitigation Fees
- .0311 Cape Fear River Basin (Schedule of Classifications)

This set of rules represents the most comprehensive approach of addressing management needs in a nutrient sensitive body of water yet. DWQ is calling on all sources to do their part. This includes a rule for agriculture, how to deal with stormwater runoff in existing developed areas, rules for new development stormwater runoff, a state and federal rule which includes NCDOT requirements, and rules for protection of riparian buffer areas.

Relative to previous nutrient strategies DWQ has established in the Neuse and Tar-Pamlico river basins, the three rules in **bold** are new editions. Given the heavily urbanized and urbanizing nature of this watershed, DWQ has determined a need to identify all significant sources, and that would include existing development areas, roadways, and universities.

Mr. Gannon then moved into presenting the requirements DWQ is proposing for NCDOT. The proposed rules parallel the local government stormwater rules for existing and new development. These rules would affect NCDOT and universities. The DWQ would administer the permitting associated with these rules. For new roads, there would be nutrient export target rates and ensuring protection of receiving streams from stormwater flows. For existing roads, the requirements would include retrofitting and working towards long term reduction goals that were presented for each arm of the lake.

In both cases, when working with NCDOT staff, DWQ recognized the very challenging nature of linear facilities and the high cost associated with putting stormwater improvements into these facilities. DWQ has done everything they could to identify and provide maximum latitude to do this and still meet the overall goals of the strategy. Mr. Gannon gave some examples. For the existing roads rule, NCDOT would conduct a feasibility study and propose to DWQ a pace of implementation and overall timeframe and nature of implementation. There is also a programmatic option of using the EEP for some of those reductions that could be more cost-effective. The implementation would begin 2.5 years after the effective date of the rules allowing for the review and approval process of the plan. That means that implementation would begin around 2011.

Mr. Gannon referenced a handout summary document with a table of costs to all affected parties of all the rules. Below is a summary of the estimated costs to NCDOT:

DOT Stormwater Costs (in Millions)

New Roads (NCDOT estimate)	~\$2 M per year	
Existing Roads Scenarios:	<u>Per Year</u>	<u>Total (over 30 years)</u>
• Conservative - all outfalls:	~\$20 M	\$600 M
• Programmatic - wholly EEP:	~ \$2 M	\$58 M
• Meet targets treating co-mingled drainage:	~ \$4 M	\$130 M

Mr. Gannon stated that the actual cost would be a little speculative to estimate. It is entirely possible that a combination of the measures would be needed due to site constraints. There was no attempt to estimate reduction in costs that could be achieved by trading with other sources that could do it more cost effectively. In the end, the use of the EEP may be limited by restoration opportunities in the watershed making it necessary to use a mix of activities to meet the goals. DWQ has also included recognition of the importance of adaptive management. As implementation begins to play out and the nutrients are reduced, it is possible that the lake could improve and DWQ could revisit and reduce some of the expensive requirements for treating existing developed areas.

DWQ is looking forward to continue working with NCDOT staff. The rulemaking schedule is such that DWQ hopes to get the rules out for public comment by mid-June and bring the rules back to the Environmental Management Commission by January 2008. They anticipate bringing the rules before the May-Aug 2008 General Assembly.

Ms. Szlosberg asked Matt Lauffer, NCDOT Hydraulics Unit, to give an NCDOT staff perspective on the rules and an overview on NCDOT's involvement to date on these rules.

Mr. Lauffer stated that NCDOT staff has been involved with this since 2005, working with DWQ. NCDOT recognizes there is a nutrient problem and there are more areas across the state where we will have the need to address nutrient problems. The NCDOT staff has some philosophical differences though on the actual compliance with the rules, which focuses on a load-based versus percent-based reduction compliance. Mr. Lauffer states that the two agencies differ on the best way to manage compliance. Also, there are other watersheds with concerns, specifically Falls Lake, facing the same sort of nutrient rules and compliance issues.

In the original model for the Jordan Lake Watershed, NCDOT was not identified or included in the model, so there is really no knowledge of what NCDOT's impacts are to the Jordan Lake Watershed. DWQ is working on future models so NCDOT is represented in the modeling and so that we can better understand and apply measures that are scientifically based. NCDOT staff worked with DWQ on the Total Maximum Daily Load (TMDL) Watershed Model for the Falls Lake Watershed, which predicted what type of nutrient loads the lake could effectively handle to get it back to its water quality standards.

Mr. Laufer stressed that the cost estimates are conservative and based on percent reduction based compliance. If we consider a load-based compliance, the estimated costs could be different. As we move forward, we need to think about this and identify options with DWQ. We are working proactively towards effective solutions to this significant problem.

Mr. Laufer mentioned that as part of our NPDES permit, we have requirements that include a stormwater control program. We also have a TMDL program that is required. We are looking for effective solutions that are cost-effective and most of all meet the water quality objectives of that reservoir. NCDOT staff has concerns about the implementation of some of these stormwater controls and whether or not they can actually achieve a reduction that DWQ is asking for. Mr. Laufer stated that it is possible for us to spend a significant amount of funds and not even make a substantial difference in water quality. This needs to be considered as we move forward.

Ms. Szlosberg asked Mr. Laufer to further explain the percent-based versus load-based compliance issue.

Mr. Laufer explained that the lake has a certain load of nitrogen and phosphorus it can handle. So, it needs a certain percentage reduction in the amount of nitrogen and phosphorus that is going into the watershed. The DWQ philosophy (percent-based) is to calculate the combined amount (or load) everybody's contributing and then reduce that load 35% - no matter what that load is. The other way to look at it is load-based compliance – using pounds per acre per year as a measure. Based on the number of acres NCDOT owns in the watershed, there would be a maximum amount of nitrogen and phosphorus that NCDOT could release into the watershed. With this loading regime, NCDOT is under the maximum limits in every part of the total watershed except for the Upper New Hope Arm. This is a significant issue that should be addressed. In addition, if NCDOT's loads are already low, then reducing the loads by 35% is extremely difficult from an engineering perspective and not very cost effective.

Ms. Szlosberg asked if this meant that we may have constructed our facilities in a way that is under the maximum that is allowed. In contrast, development in the watershed might be 45 or 50 percent above the maximum loading. She continued to ask if NCDOT is advocating for a more discrete look at each entity's contribution to the load. Mr. Betts asked if all this meant that NCDOT was not the problem.

Mr. Laufer replied that NCDOT contributes about 2% of the total nitrogen load and 3 percent of the phosphorus load delivered to the lake. However, we are the most heavily impacted single entity by these rules with regard to cost. NCDOT does not deny we are contributing nitrogen and we need

to manage that effectively to reduce our portion of it. However, the cost of being required to comply under existing development is substantial and we need to discuss that more.

Mr. Perkins concurred and stated that a key issue is that over 26 years since the reservoir was constructed, the nutrient issue has been essentially ignored. Every time the Corps of Engineers builds a reservoir, we know that development occurs. The question would be what safeguards are put in place for new development to be able to mitigate their excessive contribution to nutrient loading on the lake and this watershed. Now we are looking at this 26 years later and finding the largest organization in the mix is being asked to pay for it. This is not fair.

Ms. Szlosberg stated that this is certainly not a great way to do business but now we have a problem to solve.

Mr. Gannon stated that we need to recognize that there is twice as much forestland as developed land or agricultural land. And, even though it loads at a low rate, that large area contributes a large amount of the load. If you look at NCDOT's proportion of all developed land, it is significantly higher than 2 or 3 percent. In addition, the cost to NCDOT is proportionately higher than some of the other entities that can implement treatments more cost effectively. DWQ has attempted to identify everything they could to provide other options for NCDOT to do its part more cost effectively. And, NCDOT is certainly not the only entity facing significant cost. The estimates made for existing developments for local governments amount to \$400 million. If NCDOT can do things cost effectively, it could achieve its portion with significantly less cost than that.

Mr. Perkins stated that this should have been looked at considering the cumulative impacts of all the development that was going to occur and making everyone pay their fair share over time.

Mr. Gannon clarified that stormwater rules were not in place state-wide when the reservoir was constructed. Most of the stormwater rules arrived in the late 1980's.

Ms. Szlosberg summarized that we all have the same goal to protect the water quality and reduce loading. It is just a question of how we do it. There is an opportunity for staff to work together.

Mr. Galyon made the following motion:

"Pursuant to GS 150B-21.4, the DOT staff, at the direction of the Board of Transportation, provide recommendations to DENR on how our questions and concerns can best be addressed. The statute states that DENR shall consider any recommendations made by the Board prior to adopting the rules. We ask that the staff keep the committee and the Board apprised of any progress during this process."

The motion was seconded by Mr. Thornburg and approved by the committee.

Ms. Szlosberg introduced the next agenda item by describing Merger 01. She introduced Debbie Barbour, Director of Preconstruction, who would be informing the committee of some proposed changes to the Merger 01 process.

Ms. Barbour stated that Section 6002 (of the Federal transportation funding bill known as SAFETEA-LU) requires a very project specific coordination or collaboration plan for each project. After further review of the 6002 requirements, we've found that our Merger 01 process is largely compliant but needed a few small changes within the process to be completely compliant. Ms. Barbour asked Missy Dickens of the NCDOT Project Development and Environmental Analysis Branch to present the details of the proposed changes.

Ms. Dickens explained that they have identified minor changes to our Merger 01 process that, if implemented, would create NCDOT's Programmatic Section 6002 Coordination Plan, which would comply with Section 6002. Then, we would not have to develop an individual plan for each project. These changes are not expected to incur additional cost for the NCDOT since they are so simple. These changes have been coordinated with staff at Federal Highway Administration (FHWA), the Corps of Engineers, and DENR. She noted that they were presenting these changes to the EPPC for informational purposes.

Ms. Dickens then reviewed a handout with the committee summarizing five proposed changes:

PROPOSED CHANGE	WHAT IT MEANS
Additional emphasis on Scoping and Schedule	<ul style="list-style-type: none"> Agencies to attend scoping meetings more consistently Schedule to be emphasized in scoping correspondence and in Merger meetings
Switches order of Scoping and Merger Team formation	<ul style="list-style-type: none"> Hold Scoping Meeting first, then form Team Allows Team membership to be determined based on issues identified at scoping
Invitation to Participate	<ul style="list-style-type: none"> Agencies that signed the Merger Agreement have a standing invitation to participate Additional agencies who may have an interest will be invited to participate
Public Input on Purpose and Need	<ul style="list-style-type: none"> Public input requested prior to Merger Team concurrence on Purpose and Need Easy implementation: first public meeting can be moved before Purpose and Need Concurrence Meeting, or an early project newsletter can be mailed
Using Merger 01 as the Programmatic Section 6002 Coordination Plan does not restrict us from developing an individual Section 6002 coordination plan on a project when appropriate	<ul style="list-style-type: none"> Do not forfeit the opportunity to use Section 6002 when it would be advantageous

Ms. Dickens informed the committee that the Secretary has asked that we consider renaming Merger 01 (created in 2001) to Merger 07 (revised in 2007).

Me. Perkins asked about the percentage of attendance by resource and permitting agencies when they meet to make decisions about environmental documents.

Ms. Dickens answered that attendance is actually very good. Setting an annual schedule of interagency meetings in advance helps improve attendance.

Mr. Perkins suggested that since these studies can be very expensive, changes in the process should consider ways to help ensure attendance at meetings.

Ms. Barbour stated that our next step is to formally submit these changes to FHWA for approval. This will probably happen in the next few weeks.

Ms. Szlosberg stated that a concern with Section 6002 is that we could get all the way through the process without a concurrence point and end up in disagreement. Our Merger process has concurrence points along the way.

Ms. Barbour stated that our concurrence process has greatly reduced our risk of getting to the permit application stage and having to look at new alternatives. We have much success in getting permits on those projects that have followed the Merger process.

Mr. Sullivan of FHWA clarified that Section 6002 requires a coordination plan be developed for the project. The scope of Section 6002 is much broader than the National Environmental Policy Act. Section 6002 requires a coordination plan from project initiation all the way through any federal permit required.

Mr. Perkins asked if the concurrence part of our process is also in that legislation.

Mr. Sullivan answered that although it is not a part of the legislation, concurrence is allowed.

Ms. Szlosberg accepted a motion to adjourn the meeting at 9:25 AM.

The next meeting for the Environmental Planning and Policy Committee is scheduled for June 6, 2007 at 8:30 AM in the Board Room (Room 150) of the Transportation Building.

NS/gd